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DAQE-IN0450013-03

October 9, 2003

Tim Gwynette
Salt Lake City Department of Airports
AMF Box 22084
Salt Lake City, Utah 84122

Dear Mr. Gwynette:

Re: Intent to Approve: Modification of Existing AO (DAQE-580-01 dated July 17, 2001) to Include 7,084 New Parking Stalls, Salt Lake County, CDS B; NA; MAINT
Project Code: N0450-013

The attached document is the Intent to Approve (ITA) for the above-referenced project. ITAs are subject to public review. Any comments received shall be considered before an Approval Order is issued.

Future correspondence on this Intent to Approve should include the engineer's name as well as the DAQE number as shown on the upper right-hand corner of this letter. Please direct any technical questions you may have on this project to Mr. Tim De Julis. He may be reached at (801)536-4012.

Sincerely,

Rusty Ruby, Manager
New Source Review Section

RR:TD:jc

cc: Salt Lake Valley Health Department

Mike Owens, EPA Region VIII

STATE OF UTAH

Department of Environmental Quality

Division of Air Quality

INTENT TO APPROVE: Modification of Existing AO (DAQE-580-01 dated July 17, 2001) to Include 7,084 New Parking Stalls

Prepared By: Tim De Julis, Engineer
(801)536-4012
Email: tdejulis@utah.gov

INTENT TO APPROVE NUMBER

DAQE-IN0450013-03

Date: October 9, 2003

Salt Lake City Department of Airports

Source Contact
Tim Gwynette
(801) 575-2995

Richard W. Sprott
Executive Secretary
Utah Air Quality Board

Abstract

The Salt Lake City Department of Airports (SLCDA) operates the commercial air carrier terminal located at 776 North Terminal Rd., Salt Lake City, Salt Lake County. Commercial air carriers and other commercial tenants lease space from the terminal and are each individually responsible for the emissions resulting from their operations. SLCDA is requesting permission to modify their existing approval order DAQE-580-01 by creating 7,084 additional parking stalls within airport properties. The additional parking stalls anticipate increases in staffing and travel volumes. Salt Lake County is a Non-attainment area of the National Ambient Air Quality Standards (NAAQS) for PM_{10} and SO_2, and is a Maintenance area for CO and Ozone. New Source Performance Standards (NSPS) apply to this source (Subpart A, 40 CFR 60.1 to 60.18 - General Provisions and Subpart Kb, 40 CFR 60.110b - 60.117b - Standards of Performance for Volatile Organic Liquid Storage Vessels for which Construction, Re-construction or modification commenced after July 23, 1984). National Emission Standards for Hazardous Air Pollutants (NESHAP) and Maximum Available Control Technology (MACT) regulations do not apply to this source. Title V of the 1990 Clean Air Act does not apply to this source. The emissions, in tons per year, will change as follows:
PM_{10} (+ 4.72). The changes in emissions will result in the following potential to emit totals:
PM_{10} = 25.37, NO_x = 237.07, SO_2 = 19.39, CO = 100.10, VOC = 21.78, HAPs = 1.00.

Included in the evaluation of potential emissions, which is part of the scope of issuing a new approval order to this source, is the existence of fourteen categories of off-highway, diesel fueled, ground service vehicles which have been in use since the airport was originally opened to public service in 1967. These vehicles are: front-end loaders, earth graders, paving rollers, fork lifts (telescoping), cherry-pickers, pressure washers, trenchers, mobile generators, fire trucks, paint stripers, snow blowers, runway broom vehicles, backhoes, and field mowers. The estimated emissions, in tons per year, from all fourteen categories, based on information supplied by SLCDA, and utilizing the most recent AP-42 emission factors are as follows: PM_{10} = 18.84; SO_2 = 18.96; NO_x = 226.86; CO = 96.61; VOC = 20.99. Based on the preceding information and Utah Annotated Code, the natural minor status of this source will not change, and emissions offsets will not be required. A source air-shed modeling review is not required because the changes resulting from the 7,084 additional parking stalls are below modeling thresholds.

The emission increase shown above which is part of the parking stall expansion is due to vehicle travel on paved roadways. Emissions from vehicle engines as they operate on these roadways and within parking areas are not included in the above potential emission totals due to the fact that on-highway mobile emissions are accounted for in separate air quality programs.

The Notice of Intent (NOI) for the above-referenced project has been evaluated and has been found to be consistent with the requirements of the Utah Administrative Code Rule 307 (UAC R307). Air pollution producing sources and/or their air control facilities may not be constructed, installed, established, or modified prior to the issuance of an Approval Order (AO) by the Executive Secretary of the Utah Air Quality Board.

A 30-day public comment period will be held in accordance with UAC R307-401-4. A notice of intent to approve will be published in the Salt Lake Tribune and Deseret News on October 14, 2003. During the public comment period the proposal and the evaluation of its impact on air quality will be available for both you and the public to review and comment. If anyone so requests a public hearing it will be held in accordance with UAC R307-401-4. The hearing will be held as close as practicable to the location of the source. Any comments received during the public comment period and the hearing will be evaluated.

Please review the proposed AO conditions during this period and make any comments you may have. The proposed conditions of the AO may be changed as a result of the comments received. Unless changed, the AO will be based upon the following conditions:

General Conditions:

1. This Approval Order (AO) applies to the following company:

   Corporate and Site Office
   Salt Lake City Department of Airports
   776 North Terminal Road
   AMF Box 22084
   Salt Lake City, UT 84112

   Phone Number (801) 575-2995
   Fax Number (801) 575-2592

   The equipment listed in this AO shall be operated at the following location:

   PLANT LOCATION:
   776 North Terminal Road, Salt Lake City, Salt Lake County
   Universal Transverse Mercator (UTM) Coordinate System: UTM Datum NAD27
   4,515.3 kilometers Northing, 417.3 kilometers Easting, Zone 12

2. All definitions, terms, abbreviations, and references used in this AO conform to those used in the Utah Administrative Code (UAC) Rule 307 (R307) and Title 40 of the Code of Federal Regulations (40 CFR). Unless noted otherwise, references cited in these AO conditions refer to those rules.

3. The limits set forth in this AO shall not be exceeded without prior approval in accordance with R307-401.

4. Modifications to the equipment or processes approved by this AO that could affect the emissions covered by this AO must be reviewed and approved in accordance with R307-401-1.

5. All records referenced in this AO or in applicable NSPS, which are required to be kept by the owner/operator, shall be made available to the Executive Secretary or Executive Secretary's representative upon request, and the records shall include the two-year period prior to the date of the request. Records shall be kept for the following minimum periods:

   A. Emission inventories — Five years from the due date of each emission statement or until the next inventory is due, whichever is longer.

   B. All other records — Two years

6. SLCDA shall conduct its operations the Salt Lake International Airport in accordance with the terms and conditions of this AO, which was written pursuant to SLDA's Notice of Intent submitted to the Division of Air Quality (DAQ) on August 18, 2003.

7. This AO shall replace the AO (DAQE-580-01) dated July 17, 2001.

8. The approved installations shall consist of the following equipment (or equivalent*):

A. Four (4) runways

B. One (1) garbage incinerator

C. Two (2) Kewanee boilers (7.3 MMBTU/hr each)

D. One (1) paint spray booth

E. One (1) diesel fueled emergency generator (80 kW)

F. One (1) diesel fueled emergency generator (105 kW)

G. One (1) natural gas fueled emergency generator (135 kW)

H. One (1) diesel fueled emergency generator (200 kW)

I. One (1) diesel fueled emergency generator (210 kW)

J. One (1) diesel fueled emergency generator (225 kW)

K. One (1) diesel fueled emergency generator (250 kW)

L. One (1) diesel fueled emergency generator (300 kW)

M. One (1) diesel fueled emergency generator (350 kW)

N. One (1) diesel fueled emergency generator (500 kW)

O. Two (2) diesel fueled emergency generators (800 kW)

P. One (1) diesel fueled emergency generator (1000 kW)

Q. One (1) aircraft rescue and fire-fighting trainer (ARFFT)

R. Two (2) Rite Boilers, <5.00 MMBTU/hr each

S. Two (2) Fulton Boilers, <5.00 MMBTU/hr each

T. One (1) LAARS Teledyne Boiler, <5.00 MMBTU/hr

U. One (1) Sellars Boiler, <5.00 MMBTU/hr

V. One (1) Mammoth Boiler, <5.00 MMBTU/hr

W. One (1) Govern Air Boiler, <5.00 MMBTU/hr

X. One (1) Columbia Boiler, <5.00 MMBTU/hr

Y. Four (4) - 12,000 gallon underground gasoline storage tanks (40 CFR 60 - Subpart Kb)

Z. Various site maintenance equipment items: **

i) Front-end loaders
ii) Earth graders
iii) Paving rollers
iv) Fork lifts (telescoping)
v) Cherry-pickers
vi) Pressure washers
vii) Trenchers
viii) Mobile generators
ix) Fire trucks
x) Paint stripers
xi) Snow blowers
xii) Runway broom vehicles
xiii) Backhoes
xiv) Field mowers

AA. The following parking lots are permitted by this AO:

Parking Lot Identification		Number of Stalls
Short Term		
		1,900
Long Term and Overflow		9,200
Tenant – Miscellaneous		3,000
Tenant – Employee		1,900
Employee		4,200
Rental Car (total)		7,950
Rental Return	2,100	
OTA	850	
Overflow	5,000	
General Aviation		850
North Support Area (Employee)		1,600
TOTAL		30,600

The above figures associated with each parking area may be changed. However the total number of stalls is subject to the provisions of R307-413-4.

* Equivalency shall be determined by the Executive Secretary.

** This equipment is listed for informational purposes only.

9. The following items are recognized to be at the airport and under the control of the SLCDA. A permit is not necessary for their operation due to installation prior to November 29, 1969, or due to the unit having truly negligible emissions:

A. One (1) Kewanee Boiler, 7.3 MMBTU/hr, Pre-1969
B. One (1) Kewanee Boiler, 7.3 MMBTU/hr, Pre-1969

C. One (1) natural gas fueled emergency generator, 30 KW, Pre-1969

D. Three (3) - 5,000 gallon underground diesel fuel storage tank for emergency generators, one (1) located at Terminal 1, the other two (2) located in the north support area. Each tank has negligible emissions and no applicable standards due to low volatility and temperature.

Limitations and Tests Procedures

10. Visible emissions from the following emission points shall not exceed the following values:

A. Garbage incinerator - 10% opacity
B. Paint booth - 10% opacity
C. All boilers - 10% opacity when burning fuel oil, 7% when burning natural gas
D. Emergency generators - 10% opacity when natural gas fueled; 20% opacity when diesel fueled
E. All other points - 20% opacity

Opacity observations of emissions from stationary sources shall be conducted according to 40 CFR 60, Appendix A, Method 9.

11. The following limits shall not be exceeded without prior approval in accordance with R307-401, UAC:

A. 576,000 gallons of automotive fuel (gasoline) throughput per rolling 12-month period for the four 12,000 gallon automotive fuel, underground storage tanks.

B. 150,000 gallons of diesel fuel (#1 or #2 grade) throughput per rolling 12-month period for the three 5,000 gallon diesel fuel, underground storage tanks.

C. 10,000 pounds of garbage destruction per rolling 12-month period for the garbage incinerator

D. 750 gallons of VOC containing paint consumed in the paint booth and other associated areas per rolling 12-month period

Compliance with the limitations shall be determined on a rolling 12-month total. The owner/operator shall calculate a new 12-month total by the twentieth day of each month using data from the previous 12 months. Records of fuel throughput, garbage destruction, and paint consumption shall be kept for all periods when the plant is in operation. Fuel throughput, garbage incineration, and paint consumption shall be determined by the following: Fuel throughput shall be determined by examination of the flow measurements from all four automotive fuel storage tanks, and all three diesel fuel storage tanks. Garbage incineration shall be determined by weighing materials prior to incineration. Paint consumption shall be determined by review of purchase records, material use log or other method acceptable to the Executive Secretary. These records of fuel throughput, garbage incineration, and paint consumption shall be kept on a daily basis.

12. Emergency generators shall be used for electricity producing operation only during the periods when electric power from the public utilities is interrupted, or for regular maintenance of the generators. Records documenting generator usage shall be kept in a log and they shall show the date the generator was used, the duration in hours of the of generator usage, and the reason for each generator usage

Fuels

13. The owner/operator shall use only natural gas as fuel in the thirteen (13) boilers, one (1) garbage incinerator, and two (2) natural gas fueled emergency generators.

14. The owner/operator shall use only #2 fuel oil as fuel in the eleven (11) diesel fueled emergency generators.

15. The sulfur content of any fuel oil or diesel burned shall not exceed:

    0.50 percent by weight for fuels used in the asphalt plant.

    The sulfur content shall be determined by ASTM Method D-4294-89 or approved equivalent. Certification of fuel oil shall be either by SLDA's own testing or test reports from the fuel marketer.

16. The four 12,000 gallon automotive fuel, underground storage tanks shall be loaded and unloaded using a vapor balance system in which the air (containing VOC) displaced by the incoming liquid is piped back into the unloading vessel and returned to the loading terminal. The four 12,000 gallon automotive fuel, underground storage tanks shall be of the submerged fill type. The four 12,000 gallon automotive fuel, underground storage tanks shall be fitted with pressure/vacuum vents to control the release of VOC. The valves shall be sized to handle four (4) inches water column of positive pressure, and two (2) inches water column of vacuum.

Federal Limitations and Requirements

17. In addition to the requirements of this AO, all applicable provisions of 40 CFR 60, New Source Performance Standards (NSPS) Subpart A, 40 CFR 60.1 to 60.18 and Subpart Kb, 40 CFR 60.110b to 60.117b (Standards of Performance for Volatile Organic Liquid Storage Vessels for Which Construction, Reconstruction or Modification Commenced After July 23, 1984) apply to this installation. To be in compliance, this facility must operate in accordance with the most current version of 40 CFR 60 applicable to this source.

Volatile Organic Compound (VOC) and Hazardous Air Pollutants (HAPs) Limitations

18. The paint spray booth shall be equipped with a set of paint arrestor particulate filters, or equivalent, to control particulate emissions. All air exiting the booth shall pass through this control system before being vented to the atmosphere (outside building/operation). Equivalency determinations, when requested by the owner/operator, shall be submitted to the Executive Secretary for approval.

19. The VOC content of the paint as used in the booth shall not exceed the density limits established by UAC R307-340-9. High solids (low VOC content) paints shall not be thinned or otherwise reduced beyond manufacturers recommendations. These parameters shall be tested by using the appropriate ASTM method or another method approved by the Executive Secretary.

20. All materials, including service rags containing VOC and/or HAP, shall be stored in covered containers, except when in active use.

21. The VOC and HAP emissions shall be determined by maintaining a record of VOC and HAP emitting materials used each month. The record shall include the following data for each material used: The VOC content of the paint as used in the booth shall not exceed the density limits established by R307-340. High solids (low VOC content) paints shall not be thinned or otherwise reduced beyond manufacturers recommendations. These parameters shall be tested using the appropriate ASTM method or another method approved by the Executive Secretary.

22. The plant-wide emissions of VOCs and HAPs from the paint booths, degreasers, fuel storage tanks and other airport associated operations shall not exceed:

One ton per rolling 12-month period for VOCs and
One ton total per rolling 12-month period for all the following HAPs combined (non-specific Aldehydes, Acetaldehyde, Acrolein, Benzene, Formaldehyde, Hydrochloric Acid, Propylene, non-specific Polycyclic-Aromatic-Hydrocarbons, Toluene, and Xylene.

Compliance with each/the limitation shall be determined on a rolling 12-month total. Based on the twentieth day of each month, a new 12-month total shall be calculated using data from the previous 12 months.

The VOC and HAP emissions shall be determined by maintaining a record of VOC and HAP emitting materials used each month. The record shall include the following data for each material used:

A. Name of the VOC and HAPs emitting material, such as: paint, adhesive, solvent, thinner, reducers, chemical compounds, toxics, isocyanates, etc.

B. Density of each material used (pounds per gallon)

C. Percent by weight of all VOC and HAP in each material used

D. Gallons of each VOC and HAP emitting material used

E. The amount of VOC and HAP emitted monthly by each material used shall be calculated by the following procedure:

$$\text{VOC} = \frac{\%\ \text{VOC by Weight}}{(100)} \times \left[\text{Density } \frac{(\text{lb})}{(\text{gal})}\right] \times \text{Gal Consumed} \times \frac{1\ \text{ton}}{2000\ \text{lb}}$$

$$\text{HAP} = \frac{\%\ \text{HAP by Weight}}{(100)} \times \left[\text{Density } \frac{(\text{lb})}{(\text{gal})}\right] \times \text{Gal Consumed} \times \frac{1\ \text{ton}}{2000\ \text{lb}}$$

F. The amount of VOC or HAP emitted monthly from all materials used.

G. The amount of VOCs or HAPs reclaimed for the month shall be similarly quantified and subtracted from the quantities calculated above to provide the monthly total VOC or HAP emissions.

Records & Miscellaneous

23. At all times, including periods of startup, shutdown, and malfunction, owners and operators shall, to the extent practicable, maintain and operate any equipment approved under this Approval Order including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Executive Secretary which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source. All maintenance performed on equipment authorized by this AO shall be recorded.

24. The owner/operator shall comply with R307-150 Series. Inventories, Testing and Monitoring.

25. The owner/operator shall comply with R307-107. General Requirements: Unavoidable Breakdowns.

The Executive Secretary shall be notified in writing if the company is sold or changes its name.

This AO in no way releases the owner or operator from any liability for compliance with all other applicable federal, state, and local regulations including R307.

A copy of the rules, regulations and/or attachments addressed in this AO may be obtained by contacting the Division of Air Quality. The Utah Administrative Code R307 rules used by DAQ, the Notice of Intent (NOI) guide, and other air quality documents and forms may also be obtained on the Internet at the following web site:
http://www.airquality.utah.gov/

The annual emissions estimations below include point source, fugitive emissions, fugitive dust, road dust, tail pipe emissions, and grandfathered emissions. These emissions are for the purpose of determining the applicability of Prevention of Significant Deterioration, non-attainment area, maintenance area, and Title V source requirements of the R307. They are not to be used for determining compliance.

The vast majority of these potential emissions are tail pipe emissions, and for this reason this source is not considered a major stationary source, does not require emission offsets in the Salt Lake County non-attainment area, and does not require a Title V operating permit.

The Potential To Emit (PTE) emissions (including tail pipe emissions from off-highway vehicle use) for the portion of the Salt Lake International Airport within the responsibility of the Salt Lake City Department of Airports are currently calculated at the following values:

	Pollutant	Tons/yr
A.	PM_{10}	25.37
B.	SO_2	19.39
C.	NO_x	237.07
D.	CO	100.10
E.	VOC	21.79
F.	HAPs	
	Total HAPs	1.00

The vast majority of these potential emissions are tail pipe emissions, and for this reason this source is not considered a major stationary source, does not require emission offsets in the Salt Lake County non-attainment area, and does not require a Title V operating permit.

The Potential To Emit (PTE) emissions (excluding tail pipe emissions from off-highway vehicle use) for the portion of the Salt Lake International Airport within the responsibility of the Salt Lake City Department of Airports are currently calculated at the following values:

	Pollutant	Tons/yr
A.	PM_{10}	6.53
B.	SO_2	0.43
C.	NO_x	10.21
D.	CO	3.49
E.	VOC	0.80
F.	HAPs	
	Total HAPs	1.00

The Division of Air Quality is authorized to charge a fee for reimbursement of the actual costs incurred in the issuance of an AO. An invoice will follow upon issuance of the final Approval Order.

Sincerely,

Rusty Ruby, Manager
New Source Review Section